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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/748,492	12/26/2000	Christoph Stiller	10191/1620	2842

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EXAMINER
SUN, XIUQUIN

ART UNIT	PAPER NUMBER
2863	

DATE MAILED: 05/03/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/748,492	STILLER, CHRISTOPH	
	Examiner	Art Unit	
	Xiuqin Sun	2863	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,5,6 and 8* is/are rejected.

7)☒ Claim(s) *3,4 and 8* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. *09/748,492* .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-2 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klopfleisch et al. (U.S. Pat. No. 5068791) in view of Greenwood et al. (U.S. Pat. No. 5949685).

Klopfleisch et al. teach a method for calibrating a sensor system for detecting and analyzing an object in a path of a vehicle (see abstract), including the steps of: detecting characteristic data of the object by operating the sensor system (col. 1, lines 67-68; col. 2, lines 1-6; col. 5, lines 56-60 and col. 10, lines 49-54); sending to a calibration unit data that is interpreted as representing the object as one of stationary and quasi-stationary, taking into account a motion of the vehicle (col. 3, lines 6-21; col. 5, lines 56-60 and col. 10, lines 49-54); sending a signal to one of an analyzer unit and a driver of the vehicle when at least one sensor of the sensor system yields contradictory measurement data (col. 9, lines 39-47).

Klopfleisch et al. do not explicitly mention that: determining a deviation in instantaneously measured data from data of a model of the object as an error

vector, and correcting, in accordance with the deviation, the data of the model in order to minimize the deviation; after an initialization phase occurring in accordance with preselectable parameters, performing a first determination of object data stored as model data, and in all subsequent measurements performed cyclically, processing instantaneous data of the object data in the calibration unit with the previously determined and stored model data in order to obtain the respective error vector.

Greenwood et al. disclose a method for system calibration which teaches the step of determining a deviation in instantaneously measured data from data of a model of the object as an error vector, and correcting, in accordance with the deviation, the data of the model in order to minimize the deviation (col. 7, lines 61-67; col. 8, lines 1-11; col. 10, lines 32-43, lines 52-62; col. 21, lines 35-67; col. 22, lines 1-11 and lines 56-67). Greenwood et al. further teach that after an initialization phase occurring in accordance with preselectable parameters, performing a first determination of object data stored as model data, and in all subsequent measurements performed cyclically, processing instantaneous data of the object data in the calibration unit with the previously determined and stored model data in order to obtain the respective error vector (col. 7, lines 45-60; col. 10, lines 32-43; col. 21, lines 35-67; col. 22, lines 1-11 and lines 56-67).

It would have been obvious to include the teachings of Greenwood technique for error correction in the Klopfleisch system in order to provide a better calibration method for vehicle sensor system.

3. Claims 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over over the combination of Klopfleisch et al. and Greenwood et al., and further in view of Beliveau et al. (U.S. Pat. No. 5247487), and Lemelson et al. (U.S. Pat. No. 6275773 B1).

The Klopfleisch and Greenwood combination teaches a method and system that includes the subject matter discussed above except: a rotational motion of the vehicle due to at least one of a pitching motion and a turning a corner corresponds to the motion of the vehicle; causing a sensor arranged in an image recording system of the sensor system to serially determine and analyze pixels in accordance with an electronic camera having a nonlinear transformer characteristic in a recording interval.

Beliveau et al. disclose a system and method for spatial measurement recovery which teaches a data sensing device that can move around corresponding to a rotational motion of a vehicle due to at least one of a pitching motion and a turning a corner (col. 1, lines 49-66 and col. 5, lines 5-22).

Lemelson et al. disclose a system and method for vehicle collision avoidance warning and control which teaches the step of: causing a sensor arranged in an image recording system of the sensor system to serially determine and analyze pixels in accordance with an electronic camera having a nonlinear transformer characteristic in a recording interval (col. 22, lines 13-33 and col. 23, lines 39-61).

It would have been obvious to include the teachings of Beliveau rotational data sensing device and Lemelson image analysis technique in the combination of Klopfleisch and Greenwood in order to provide a better calibration method for vehicle sensor system.

Allowable Subject Matter

4. Claims 3-4 and 7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

(1) Gioutsos et al. (U.S. Pat. No. 5490069) discloses a multiple-strategy crash discrimination system.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Xiuqin Sun whose telephone number is (703)305-3467. The examiner can normally be reached from 7:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Hilten can be reached on (703)308-0719. The fax phone numbers for the organization where this application or proceeding is

assigned are (703)308-5841 for regular communications and (703)308-5841 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.

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April 30, 2002

JOHN S. HILTEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800